

## INTERAGENCY AGREEMENT WITH THE WASHINGTON STATE DEPARTMENT OF FISH AND WILDLIFE

### Agreement No. IAA 13-147

This Agreement is between the Washington State Department of Fish and Wildlife, referred to as WDFW and the Washington State Department of Natural Resources, referred to as the DNR.

The DNR is under authority of RCW Chapter 43.30 of Washington State, Department of Natural Resources. DNR and WDFW enter into this agreement under Chapter 39.34, Interlocal Cooperation Act.

The purpose of this Agreement is to conduct a forage fish survey along the Washington coast and to collect and map commercial and recreational fishing location data from fishery logbooks.

# Attachment A STATEMENT OF WORK

## **Scope of Work**

#### 1. Coastal Forage Fish Survey

WDFW shall conduct forage fish surveys along the Washington coast from the mouth of the Columbia River north to Cape Flattery each year, for three years. The first year will focus on spawning beach survey because these surveys provide information necessary for designing other surveys and for spatial planning. A spawning beach survey, standardized in the late 1990s, consists of: 1) collecting pertinent habitat, beach slope, tidal height, and positional data for the site; 2) collecting sediment samples from four evenly spaced locations along a 100-ft transect at a given tidal height; 3) passing the sediment through a fixed set of sieves; 4) agitating the 0.5 mm size fraction of the sample in a washbasin to isolate the least dense elements; and 5) examining the resulting 'winnowed light fraction' for egg presence and abundance using a compound microscope. Particulars of the survey protocol can be found at:

http://wdfw.wa.gov/conservation/research/projects/marine\_beach\_spawning/index.html. We do not propose to collect samples of adult fish or water, nor do we intend to retain any sediment other than the winnowed light fraction.

WDFW will coordinate with the Northwest Indian Fisheries Commission and the Coastal Treaty Tribes in conducting the field work. Because few locations have ever been sampled to document forage fish spawning beaches on the outer coast, the specifics of when and where to sample are not well understood. Using GIS data layers based on aerial photography and LiDAR, and coordinating closely with Tribal representatives, we plan to identify likely spawning beaches for focused surveys. Several logistical considerations, including availability of access and sampler safety, will be taken into account during planning. In order to extend our ability to sample as many beaches as possible over a broad seasonal range, we plan to draw on the manpower resources of Tribes, particularly to cover the remote beaches of the northern coast. WDFW will provide training, equipment for volunteers, and sample analysis support with the ultimate goal of conducting at least 500 surveys over as broad a spatial and seasonal scale as possible.

If funding is made available for BN15, we propose a recreational fishery survey to map fishing patterns including target species, location and timing for the second phase of the project. As the third phase, we will expand the recreational fishery evaluation to include utilization (effort) statistics and initiate a commercial fishery observer program to map incidental commercial gear interactions with these forage fish. During these later phases, efforts on beach spawning surveys will be reduced and focused on specific uncertainties that are identified by analyses of data collected during the first phase. Each of these activities can also be collaborative efforts with Tribal managers and biologists.

#### 2. Coastal Logbook Data Entry, Analysis, and Mapping

WDFW shall enter and analyze data from state and federally managed coastal commercial and charterboat fishery logbooks, including groundfish bottom trawl, Dungeness crab pot, Pacific halibut longline, sardine purse seine, pink shrimp trawl, spot prawn pot, hagfish pot, and albacore tuna troll and charterboat fisheries, to initiate a comprehensive map in a Geographic Information System (GIS) of coastal fishing activities. The focus will primarily be identifying fishing locations for these fisheries; however, one could also infer which of those areas might be of higher importance from reviewing data across a long time-series (e.g., groundfish bottom trawl). Data will be aggregated and summarized to meet federal and state data confidentiality requirements.

### 3. Recreational Fishing Location Data Collection, Analysis, and Mapping

WDFW shall contact and interview persons engaged in coastal recreational fishing activities, including local charterboat operators, private anglers, and community representatives to collect data on where recreational fishing occurs in Pacific Ocean waters. These data would be entered, analyzed, and mapped in GIS. The focus will primarily be identifying fishing locations for these fisheries; however, we also plan to ask which areas are of higher importance for specific trip types (e.g., halibut vs. bottomfish targeted fisheries). Data will be aggregated and summarized to meet federal and state data confidentiality requirements.